



## Rules for battery replacement under warranty

### All Motorcycles

### Electronic Service Bulletin SRV-ESB-19-001

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To: Dealer Principal, General Manager, Service Manager, North American Dealer Network  
From: Richard Kenton, Technical Director  
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**This Electronic Service Bulletin replaces and cancels  
the bulletin SRV-ESB-17-002 published on November 16, 2017**

Dear Dealers,

This document is to provide you with the correct procedure to follow for 12 volt battery replacement under warranty for the batteries installed on all Ducati motorcycle models. Ducati guarantees that all batteries installed on all Ducati motorcycles, like all other vehicle components, for a period of 12 months shall be free of manufacturing faults.

**According to our experience and the feedback provided by the supplier, the battery manufacturing faults occur always within the first 3 months from the battery warranty activation date.**

According to our analyses, batteries replaced after this time, did not feature manufacturing faults and they were returned to a properly serviceable state after a full charge cycle with a dedicated charger.



#### **NOTE**

Following are the Ducati Service approved chargers for lead-acid batteries:  
TecMate BatteryMate 150-9 and Optimate Pro 4

For lithium-ion batteries use **ONLY** the Ducati Service approved charger **part no. 69924821A**.



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## Lead-Acid Battery Operation

Lead-Acid batteries are subject to **sulfation** (formation of lead sulphate crystals on the plates) when they are discharged deeply and quickly (for instance because of the use of non-original equipment devices like satellite anti-theft systems, etc.) or when they are not charged periodically when the vehicle is not in use (battery self-discharge and motorcycle natural consumption).

The battery can be charged periodically either through the charge circuit of the motorcycle or the Ducati approved charge maintainer when the vehicle is not used for extended periods.

A new **Ducati Battery Charger** is now available with the following part number:

- 69928471AZ (North America)



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The warranty conditions **for Customers** are indicated in the motorcycle owner's manual, and in chapter 2 "Exclusions" of the Service Booklet section "General Warranty Conditions".

The **battery preparation method during the pre-delivery phase** influences the battery life. If it is not performed correctly, it reduces the battery capacity compared to the nominal one. Below you will find the guidelines to perform a correct activation of the lead-acid batteries.

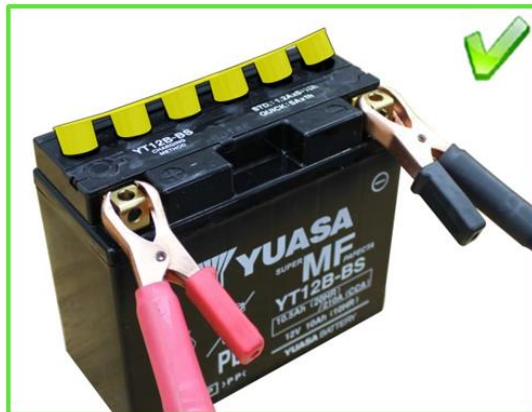
#### Lead Acid Battery Preparation



#### WARNING

Carefully read the filling, charging and installation instructions below before working with the battery

1. Remove the adhesive strip that protects the filler caps on the battery
2. Add acid to the battery (check that all acid is poured into the battery)
3. Allow battery to rest for at least 60 minutes (this process is essential to ensure a correct battery performance)
4. Place the bar with the caps on the battery filler holes without securing it
5. Keep the bar down without fixing it and perform the first battery charge in the **"new"** setting



#### NOTE

Check that battery terminals remain properly connected to the battery charger

6. At the end of the first charge, press the bar down firmly with both hands to ensure caps proper seating (avoid pounding and hammering)




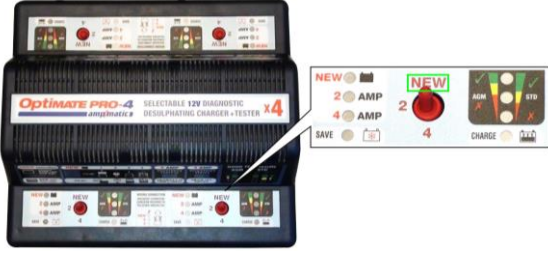
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#### Battery Charger Operation with New Lead Acid Batteries

For the first recharge, follow the instructions of the manual present inside the acid box, making sure to use one of the Ducati approved chargers listed here below:

BatteryMate 150-9																																				
 <table border="1"><thead><tr><th>RANGE</th><th>TEST LOAD</th><th>AMP</th><th>FILLER CAP BATTERIES</th><th>DO NOT MIX</th></tr></thead><tbody><tr><td>1</td><td>15A</td><td>2 SAH</td><td>YD1-, YD2-</td><td></td></tr><tr><td>2</td><td>35A</td><td>4 SAH</td><td>YD4-, YD5-, YD6-</td><td></td></tr><tr><td>3</td><td>75A</td><td>8 SAH</td><td>YD8-, YD9-, YD10-</td><td></td></tr><tr><td>4</td><td>120A</td><td>12-14Ah</td><td>YD12-, YD13-, YD14-, YD15-, YD16-, YD17-, YD18-, YD19-, YD20-</td><td></td></tr><tr><td>5</td><td>175A</td><td>17-27Ah</td><td>YD21-, YD22-, YD23-, YD24-, YD25-, YD26-, YD27-, YD28-, YD29-, YD30-</td><td></td></tr><tr><td>6</td><td>175A</td><td>32Ah-5</td><td>YD31-, YD32-, YD33-, YD34-</td><td></td></tr></tbody></table>	RANGE	TEST LOAD	AMP	FILLER CAP BATTERIES	DO NOT MIX	1	15A	2 SAH	YD1-, YD2-		2	35A	4 SAH	YD4-, YD5-, YD6-		3	75A	8 SAH	YD8-, YD9-, YD10-		4	120A	12-14Ah	YD12-, YD13-, YD14-, YD15-, YD16-, YD17-, YD18-, YD19-, YD20-		5	175A	17-27Ah	YD21-, YD22-, YD23-, YD24-, YD25-, YD26-, YD27-, YD28-, YD29-, YD30-		6	175A	32Ah-5	YD31-, YD32-, YD33-, YD34-		<p>Position the yellow knob on "NEW". Position the red knob on the correct battery nominal charge "RANGE".</p> <p>Example for battery <b>YUASA YT12B - BS:</b> Range 4 → 10÷16Ah</p>
RANGE	TEST LOAD	AMP	FILLER CAP BATTERIES	DO NOT MIX																																
1	15A	2 SAH	YD1-, YD2-																																	
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### Lithium-ion batteries

Lithium Ion batteries are subject to permanent damage if they exposed to overvoltage and overcharging, as well as by excessive discharge. These batteries must be charged and/or kept charged when the bike is not used for extended times, using the charger / charge maintainer no. 69924821A specific for this type of battery. **Never use battery chargers for lead-acid batteries.**

For the currently used batteries HJT7B-FPZ-SC and HJT7B-FPZ, never exceed 14.5 Volts during the charge cycle. In any case, the charge current shall never exceed 0.5 C = 2 Amperes (considering that the battery nominal capacity is C=4Ah).



#### NOTE

Make sure that no accessory is directly connected to the battery or to the motorcycle diagnostic socket.



#### WARNING

During battery storage in the workshop, it is necessary to fully charge it at least once every 3 months using the dedicated charger for Lithium-ion batteries part no.69924821A.

### Pre-delivery operations for lithium ion batteries

Before installing the battery on the motorcycle, measure the static voltage; if equal to or higher than 8 Volts, fully charge the battery using the dedicated charger for Lithium-ion batteries part no.69924821A.



#### NOTE

Lithium-ion batteries with voltage lower than or equal to 8 Volts shall NEVER be charged and must be replaced.



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#### New Warranty authorization process for batteries

For any battery warranty reimbursement request it will be necessary to include the Technical sheet for the request of battery replacement under warranty attached to this bulletin (SRV-ESB-19-001 Annex.pdf) with your warranty pre-authorization request. This will allow us to better identify and analyses the real faults.

This sheet must be filled in every part and attached to the warranty pre-authorization request; please be reminded that the .pdf file can be modified; to enter the required information, the document does NOT need to be printed; just open and edit it directly by means of a .pdf viewer; once it has been edited and saved, the document may be attached.

Your Service Area Manager will assess the request according to the information specified in it and may request to send the battery to Ducati to have it analyzed.

Should it not be possible to recover the battery because of a fault caused by the vehicle electric system, it will be replaced under Warranty. To this end, it is necessary to specify it in the relevant repair request of the electric system by indicating the real fault cause (for instance: voltage regulator, component that has caused the excessive consumption, etc.).

#### Assessment criteria of lead-acid battery efficiency

A lead-acid battery that is still efficient in terms of residual charge and its inrush current after the charge cycle must respect the values below:

Measurement (1)	<b>(B) <math>\geq 12.5</math> Volts</b>
Measurement (2)	<b>C<sub>1</sub> and C<sub>2</sub> <math>\geq 12.5</math> Volt</b>
Measurement (3)	<b>(C<sub>1</sub>) - (C<sub>2</sub>) <math>\leq 0.2</math> Volt</b>

Under the following conditions:

- is the battery no-load voltage measured before the charge cycle (battery disconnected from electric charges)
- is the battery no-load voltage measured after a 10-hour charge cycle and a 2-hour "stabilization" period
- is the battery no-load voltage measured after a 15-second cranking cycle and a 5-minute "waiting" time

The voltage value of 12.5 Volts corresponds to a 75% of the nominal charge of a VRLA battery in good conditions.



#### NOTE

If value **(A)** is **< than 10 Volts**, the conditions of **Measurement (1)** could not be met. In that case, perform a second standard (STD) charge of the battery.



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First take **Measurement (1)** and ONLY IF the specified conditions are met, proceed with **Measurement (2)**; otherwise replace the battery.

The measurement of value (C) must be performed twice, therefore two values of no-load voltage ( $C_1$ ) and ( $C_2$ ) will be detected and reported in the technical sheet.



#### NOTE

Should the  $C_1$  and  $C_2$  values NOT be  $\geq 12.5$  Volts, do not perform **Measurement (3)** and replace the battery.

#### Assessment criteria of Lithium-ion battery efficiency

Lithium-ion batteries feature a "quite low" voltage drop during the discharge, until the battery residual charge is close to a 20% of the nominal value. For this reason, it is not possible to infer the residual charge or the inrush current by monitoring the no-load voltage or after the cranking cycle (as for the lead-acid batteries).



#### WARNING

Lithium-ion batteries already installed on the motorcycle, must be charged using the battery charger approved by Ducati for lithium-ion batteries part no. 69924821A, regardless of the detected no-load voltage (voltage measured with battery not connected to the electric system of the motorcycle).



#### NOTE

We hereby inform you that all Lithium-ion batteries for which a replacement under warranty is requested will be checked, and should they be found suitable, the request of reimbursement under warranty will be rejected.

After the complete charge cycle, wait 1 hour and check that:

1. **(B)  $\geq 12.7$  Volts**; value (B) is the no-load voltage of the battery measured after a 10-hour charge cycle and a 2-hour "stabilization" period.
2. It is possible to start the engine 3 times at intervals of 10 seconds. After starting the engine, let it run for 5 seconds at idle and then stop it.

If one of the 2 conditions above is not met, fill in a **YouTech** Service Request and wait for your Service Area Manager feedback before filling in a warranty pre-approval request.



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#### Assessment criteria of generator/regulator recharge system efficiency

The battery charge system can be considered efficient if, using a battery with no-load voltage  $\geq 12.8$  Volts, the 2 following measurements (D) and (E), corresponding to the voltage value regulated in the battery, are verified:

1.  $(D) \geq 13.5$  Volts
2.  $13.5 \text{ Volts} \leq (E) \leq 15.0$  Volts

where:

**(D):** is the measured battery voltage, regulated by the charge system with engine at idle; auxiliary electric devices such as fans, turn indicators, heated handgrips, high beams, etc. (if any) must be disabled.

**(E):** is the measured battery voltage, regulated by the charge system with engine at 4000 rpm; auxiliary electric devices such as fans, turn indicators, heated handgrips, high beams, etc. (if any) must be disabled.

#### Assessment criterion of the current nominal consumption of the motorcycle in Key-OFF condition

The motorcycle electric system is designed to reduce the battery current consumption as much as possible when the bike is off. Such value usually respects a maximum allowed value calculated below for each Ducati model without including production tolerances and component ageing.

The electric current absorbed by the motorcycle in key-OFF indicated as **(F)** must be measured with the DMT instrument part no. 979000260 following the instructions indicated in the relevant technical manual.



#### NOTE

The values of current absorbed by the motorcycle are calculated without installed accessories (both original and non-original). Disconnect any accessory before taking the measurement. After your Area Manager has checked the technical sheet, a new measurement of the electric consumption of Ducati original accessories may be requested.





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Models	MY	Maximum value of absorbed current in Key-OFF [mA]	Absorption class
SBK 848-1098-1198	07-13	(F) ≤ 2.5 mA	A3
Multistrada 1200 (all versions)	10-14		
Streetfighter 848-1098	10-15		
Hypermotard 796	10-12	(F) ≤ 0.7 mA	A2
Hypermotard 1100 Evo	10-12		
Monster 696	08-14		
Monster 795	12-15		
Monster 796	11-15		
Monster 1100 Evo	12-13		
Multistrada 950	17-19	(F) ≤ 0.4 mA	A1
Diavel (all versions)	11-18		
Diavel 1260 (all versions)	19		
XDiavel (all versions)	16-19		
Hypermotard 821 (all versions)	13-15		
Hypermotard 939 (all versions)	16-18		
Hypermotard 950 (all versions)	19		
Monster 797 (all versions)	17-19		
Monster 821 (all versions)	14-19		
Monster 1200 (all versions)	14-19		
Multistrada 1200 (all versions)	15-18		
Multistrada 1260 (all versions)	18-19		
Multistrada 1200 Enduro (all versions)	16-18		
Multistrada 1260 Enduro (all versions)	19		
Scrambler (all versions)	15-19		
Scrambler Sixty2 (all versions)	16-19		
Supersport (all versions)	17-19		
899 Panigale	14-15		
1199 Panigale (all versions)	12-15		
1199 Superleggera	14		
959 Panigale (all versions)	16-19		
1299 Panigale (all versions)	15-18		
1299 Superleggera	17		
Panigale V4 (all versions)	18-19		

The measurement must be performed with the red security LEDs off. If the security LED is still active, wait for the flashing to stop (it can last up to 24 hours, refer to the Operating and Maintenance Instructions Manual of the analyzed model)



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#### Assessment criteria for the battery replacement under warranty

The battery can be replaced under warranty exclusively upon authorization of the Service Area Manager who will assess the relevant technical sheet. The warranty will cover the following cases:

- problems of the battery charge system and therefore of non-conforming battery according to the efficiency checks and the engine cranking test;
- a higher self-absorption current in Key-OFF condition (F) than the specified one indicated in the table above and therefore of non-conforming battery according to the efficiency check and the engine cranking test;
- faulty battery (within the first 3 months from the warranty activation date).

Ducati reserves the right to request the return of the batteries replaced under warranty within 90 days of the replacement

#### Warranty reimbursement procedure

For the operations necessary to fill in the Technical sheet for the request of battery replacement under warranty you will be reimbursed for a labor time of ■ minutes (■ LU). The warranty reimbursement request is submitted by providing the following codes for labor:

Operation Code

0 – 999 – 179



#### NOTE

Ducati will not accept warranty requests for non-original batteries, i.e. batteries that have not been purchased through the Ducati DMH official network (For North America market excluded- must use direct replacement of same model from same manufacturer sourced from local vendor)



#### NOTE

Warranty requests for North America must include the invoice for the replacement battery denoting battery description, part number, and the dealer cost from the local vendor



#### NOTE

Ducati will not accept warranty requests unless the technical sheet is filled in correctly and attached to the request (SRV-ESB-18-006 ENGLISH\_Annex.pdf)

For questions about this Electronic Service Bulletin,  
please contact your Service Area Manager.